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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Robert E. Reiter and Owen N. Witte **Examiner:** L. Helms
Serial No.: 09/038,261 **Group Art Unit:** 1642
Filed: March '10, 1998 **Docket:** 30435.54USU1
Notice of Allow. Date:
Due Date:
Title: PSCA: PROSTATE STEM CELL ANTIGEN AND USES THEREOF

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PATENT & TRADEMARK OFFICE

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this Transmittal Letter and the paper, as described hereinabove, are being deposited in the United States Postal Service, as first class mail, in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on October 31, 2000.

By: Renato Marco P. Domingo
Renato Marco P. Domingo

Box Official Draftsperson
Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

We are transmitting herewith the attached:

- ☒ Transmittal Sheet in duplicate containing Certificate of Mailing
- ☒ Submission of Formal Drawings
- ☒ 21 sheets of formal drawings
- ☒ Return postcard

Please charge any additional fees or credit overpayment to Deposit Account No. 50-0306. A duplicate of this sheet is enclosed.

MANDEL & ADRIANO
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(626)395-7801

By: Sarah B. Adriano
Name: Sarah B. Adriano
Reg. No.: 34,470
Initials: SBA

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TC 3700 MAIL ROOM

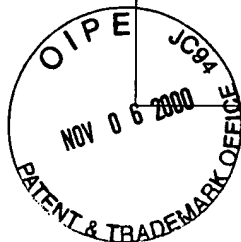
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	R. Reiter et al.	Examiner:	L. Helms
Serial No.:	09/038,261	Group Art Unit:	1642
Filed:	March 10, 1998	Docket No.:	30435.54USU1
Title:	PSCA: PROSTATE STEM CELL ANTIGEN AND USES THEREOF		

CERTIFICATE UNDER 37 CFR 1.8:

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on October 31, 2000.

Renato Marco Dominguez
Renato Marco Dominguez



SUBMISSION OF FORMAL DRAWINGS

Assistant Commissioner for Patents
Attn: Official Draftsman
Washington, D.C. 20231

Dear Sir:

Submitted herewith are 21 sheets of Formal Drawings for completion of this application, and in compliance with the requirements of the Official Communication from the Examiner dated December 6, 1999.

Respectfully submitted,

Sarah B. Adriano

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Registration No. 43,902
Sarah B. Adriano
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35 N. Arroyo Parkway, Suite 60
Pasadena, California 91103
626/ 395-7801

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FIG. 1A

```
1  agggagagggc agtgaccatg aaggctgtgc tgcttgccct gttgatggca
51  ggcttgggccc tgcagccagg cactgccctg ctgtgctact cctgcaaagc
101 ccaggtgagc aacgaggact gcctgcaggt ggagaactgc acccagctgg
151 gggagcagtg ctggaccgcg cgcattccgc cagttggcct cctgaccgtc
201 atcagcaaag gctgcagctt gaactgcgtg gatgactcac aggactacta
251 cgtgggcaag aagaacatca cgtgctgtga caccgacttg tgcaacgcca
301 gcggggccca tgccctgcag ccggctgccg ccattccttg gctgctccct
351 gcactcggcc tgctgctctg gggaccggc cagctatagg ctctggggg
401 ccccgctgca gccacactg ggtgtggtgc ccaggcctt tgtgccactc
451 ctcacagaac ctggcccagt gggagcctgt cctggttctt gaggcacatc
501 ctaacgcaag tttgaccatg tatgtttgca ccccttttcc ccnaaccctg
551 accttcccat gggccttttc caggattccn accnggcaga tcagttttag
601 tganacanat ccgcntgcag atggcccctc caaccnttn tgttgntggt
651 tccatggccc agcattttcc acccttaacc ctgtgttcag gcacttnttc
701 ccccaggaag cttccctgc ccacccatt tatgaattga gccaggtttg
751 gtccgtggtg tccccgcac ccagcagggg acaggcaatc aggagggccc
801 agtaaaggct gagatgaagt ggactgagta gaactggagg acaagagttg
851 acgtgagttc ctgggagttt ccagagatgg ggcctggagg cctggaggaa
901 ggggccaggc ctcacatttg tgggntccc gaatggcagc ctgagcacag
951 cgtaggccct taataaacac ctgttgata agccaaaaaa aaaaaaaa
```

FIG. 1B

```
MKAVLLALLMAGLALQPGTALLCYSCKAQVSNECLQV
ENCTQLGEQCWTARIRAVGLLTVISKGCSLNCVDDS
QDYVVGKKNITCCDTLDCNASGAHALQPAAAILALLPAL
GLLLWGPQQL
```

FIG. 2

```

1  ATGAAGACAGTTTTTTTTATCCTGCTGGCCACCTACTTAGCCCTGCATCCAGGTGCTGCT
   -----+-----+-----+-----+-----+-----+ 60
   TACTTCTGTCAAAAAAATAGGACGACCGGTGGATGAATCGGGACGTAGGTCCACGACGA

   M K T V F F I L L A T Y L A L H P G A A

61  CTGCAGTGCTATTCATGCACAGCACAGATGAACAACAGAGACTGTCTGAATGTACAGAAC
   -----+-----+-----+-----+-----+-----+ 120
   GACGTCACGATAAGTACGTGTCGTGTCTACTTGTGTCTCTGACAGACTTACATGTCTTG

   L Q C Y S C T A Q M N N R D C L N V Q N

121 TGCAGCCTGGACCAGCACAGTTGCTTTACATCGCGCATCCGGGCCATTGGACTCGTGACA
   -----+-----+-----+-----+-----+-----+ 180
   ACGTCGGACCTGGTCGTGTCAACGAAATGTAGCGCGTAGGCCCGGTAACCTGAGCACTGT

   C S L D Q H S C F T S R I R A I G L V T

181 GTTATCAGTAAGGGCTGCAGCTCACAGTGTGAGGATGACTCGGAGAACTACTATTTGGGC
   -----+-----+-----+-----+-----+-----+ 240
   CAATAGTCATTCCCGACGTCGAGTGTCACTCTACTGAGCCTCTTGATGATAAACCCG

   V I S K G C S S Q C E D D S E N Y Y L G

241 AAGAAGAACATCACGTGCTGCTACTCTGACCTGTGCAATGTCAACGGGGCCACACCCTG
   -----+-----+-----+-----+-----+-----+ 300
   TTCTTCTTGTAGTGACGACGATGAGACTGGACACGTTACAGTTGCCCGGGTGTGGGAC

   K K N I T C C Y S D L C N V N G A H T L

301 AAGCCACCCACCACCCTGGGGCTGCTGACCGTCTGTCAGCCTGTTGCTGTGGGGCTCC
   -----+-----+-----+-----+-----+-----+ 360
   TTCGGTGGGTGGTGGGACCCGACGACTGGCACGAGACGTCGGACAACGACACCCCGAGG

   K P P T T L G L L T V L C S L L L W G S

361 AGCCGTCTGTAGGCTCTGGGAGAGCCTACCATAGCCCGATTGTGAAGGGATGAGCTGCAC
   -----+-----+-----+-----+-----+-----+ 420
   TCGGCAGACATCCGAGACCCTCTCGGATGGTATCGGGCTAACACTTCCCTACTCGACGTG

   S R L *

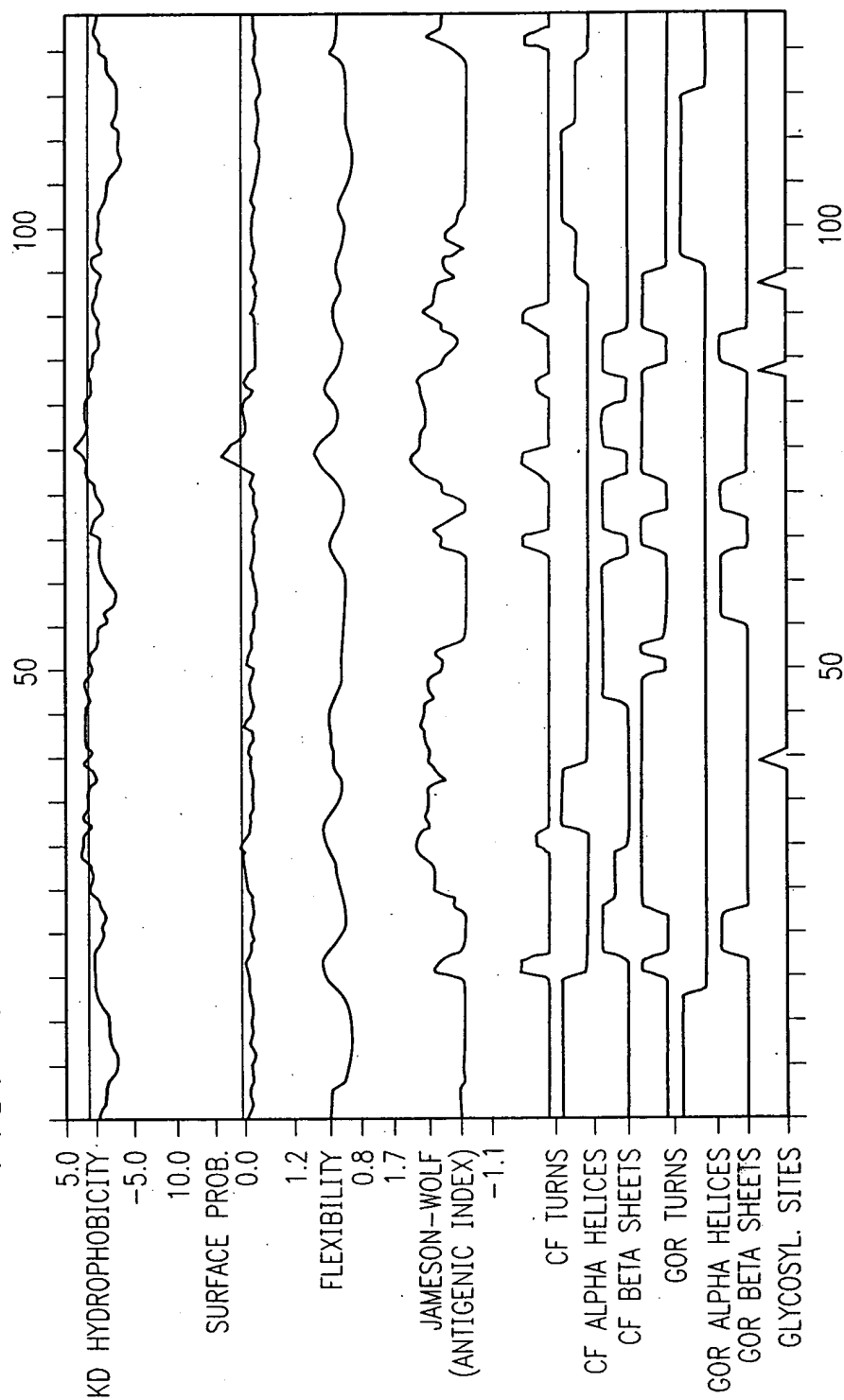
421 TCCACCCACCCACACAGG
   -----+-----+ 441
   AGGTGGGGTGGGGTGTGTCC

```

FIG. 3

1	M	K	I	F	L	P	V	L	L	A	A	L	L	G	V	E	R	A	S	S	hSCA-2
1	M	K	A	V	L	L	A	L	L	M	A	G	L	A	L	O	P	G	T	A	hPSCA
1	M	K	T	V	L	F	L	L	A	T	Y	L	A	L	H	P	G	A	A	mPSCA	
21	L	M	C	F	S	C	L	N	Q	K	S	N*	L	Y	C	L	K	P	T	I	
21	L	L	C	Y	S	C	K	A	Q	V	S	N*	E	D	C	L	Q	V	E	N*	
21	L	Q	C	Y	S	C	T	A	Q	M	N	N*	R	D	C	L	N	V	Q	N*	
41	C	S	D	Q	D	N	Y	C	V	T	V	S	A	S	A	G	I	G	N	L	
41	C	T	Q	L	G	E	Q	C	W	T	A	R	I	R	A	V	G	L	L	T	
41	C	S	L	D	Q	H	S	C	F	T	S	R	I	R	A	I	G	L	V	T	
61	V	T	F	G	H	S	L	S	K	T	C	S	P	A	C	P	I	P	E	G	
61	V	-	-	-	-	-	I	S	K	G	C	S	L	N	C	V	D	D	S	Q	
61	V	-	-	-	-	-	I	S	K	G	C	S	S	Q	C	E	D	D	S	E	
81	V	N	V	G	V	A	S	M	G	I	S	C	C	Q	S	F	L	C	N*	F	
76	D	Y	Y	V	G	K	K	-	N*	I	T	C	C	D	T	D	L	C	N*	A	
76	N	Y	Y	L	G	K	K	-	N*	I	T	C	C	Y	S	D	L	C	N*	V	
101	S	A	A	D	G	G	L	R	A	S	V	T	L	L	G	A	G	L	L	L	
95	S	G	A	H	A	L	Q	P	A	A	A	I	L	A	L	L	P	A	L	G	
95	N	G	A	H	T	L	K	P	P	T	T	L	G	L	L	T	V	L	C	S	
121	S	L	L	P	A	L	L	R	F	G	P										
115	L	L	L	W	G	P	G	Q	L	-	-										
115	L	L	L	W	G	S	S	R	L	-	-										

FIG. 4



HYDROPHOBICITY PLOT OF PSCA

FIG. 5

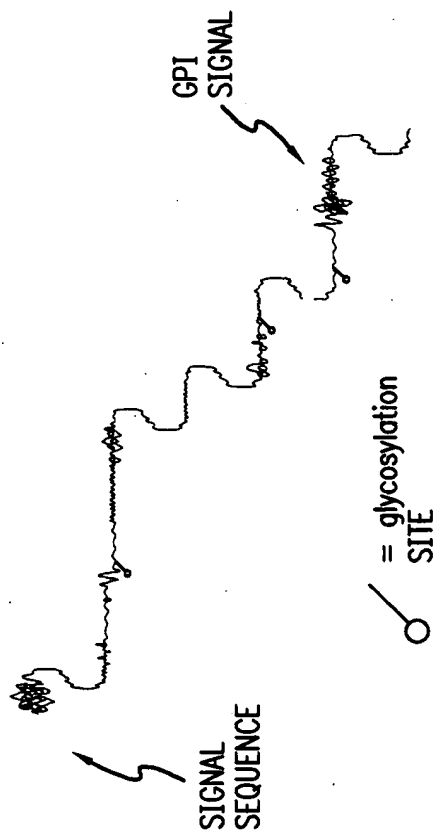


FIG. 6

NORMAL
LNCAP AI
MATLYLU
DU145
PC3
LAPC-7 **
LAPC-3
LAPC-4 AI



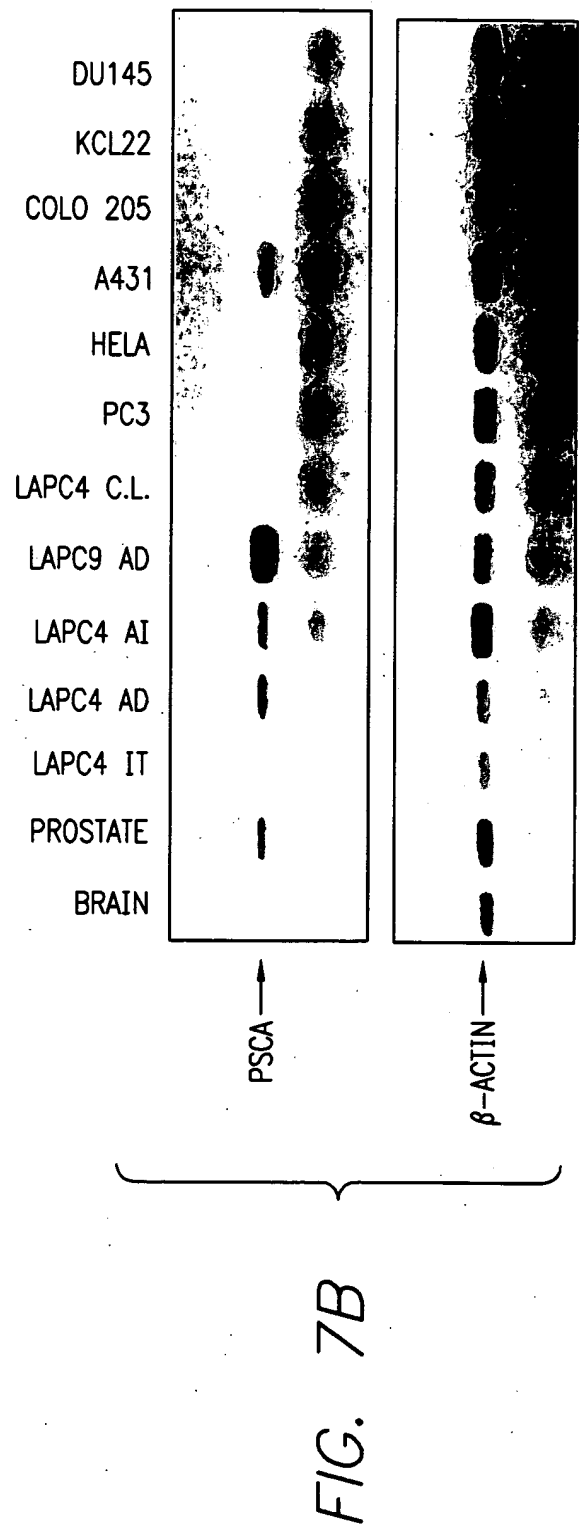
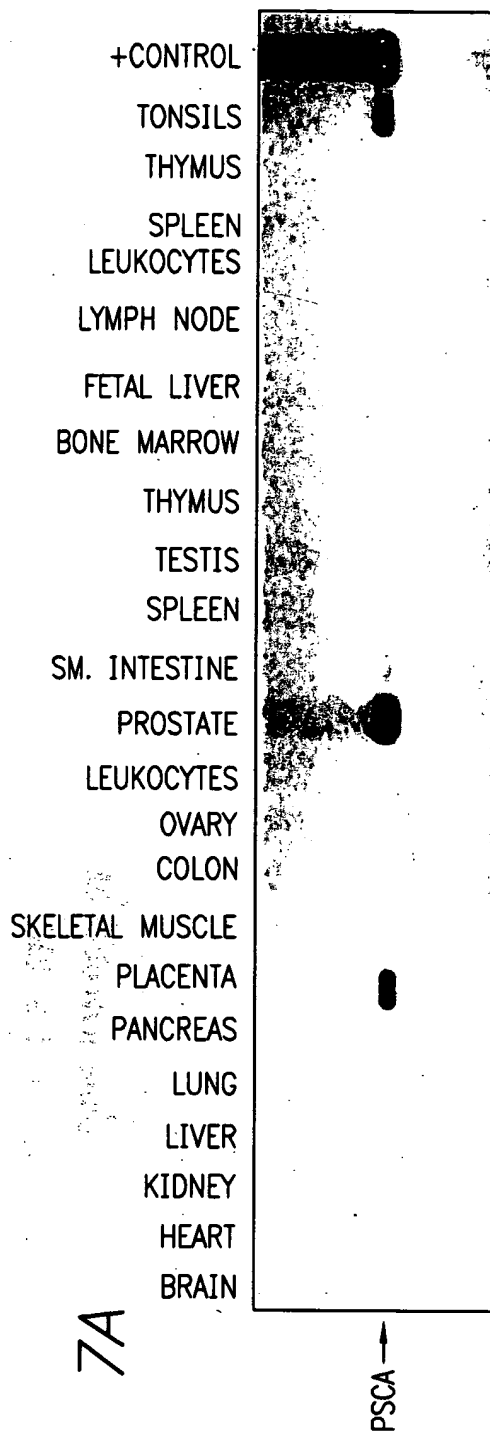


FIG. 8A

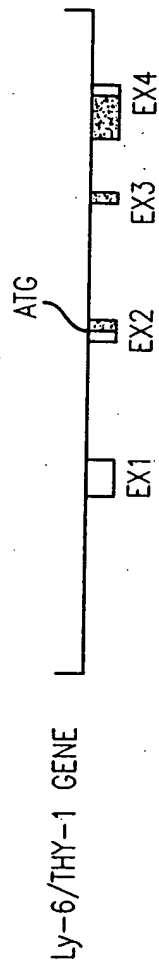


FIG. 8B

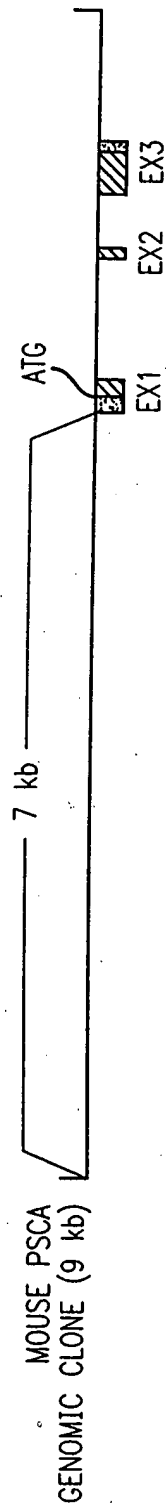
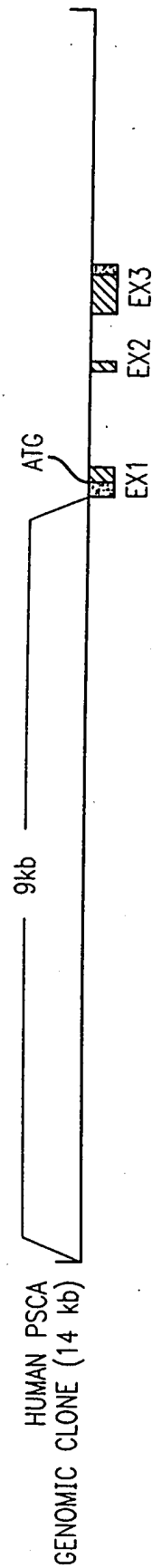


FIG. 8C



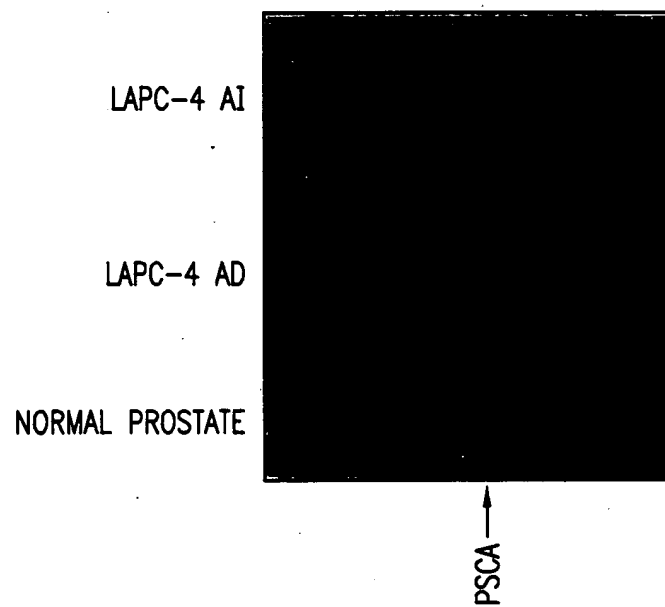
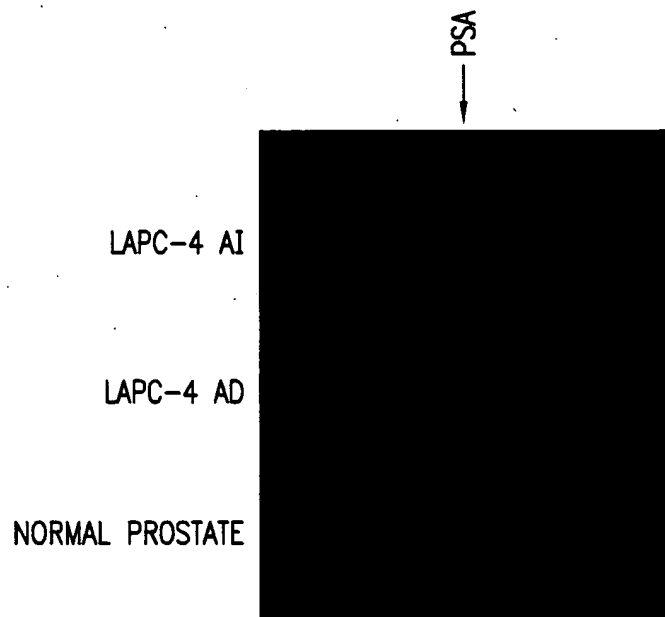


FIG. 9A

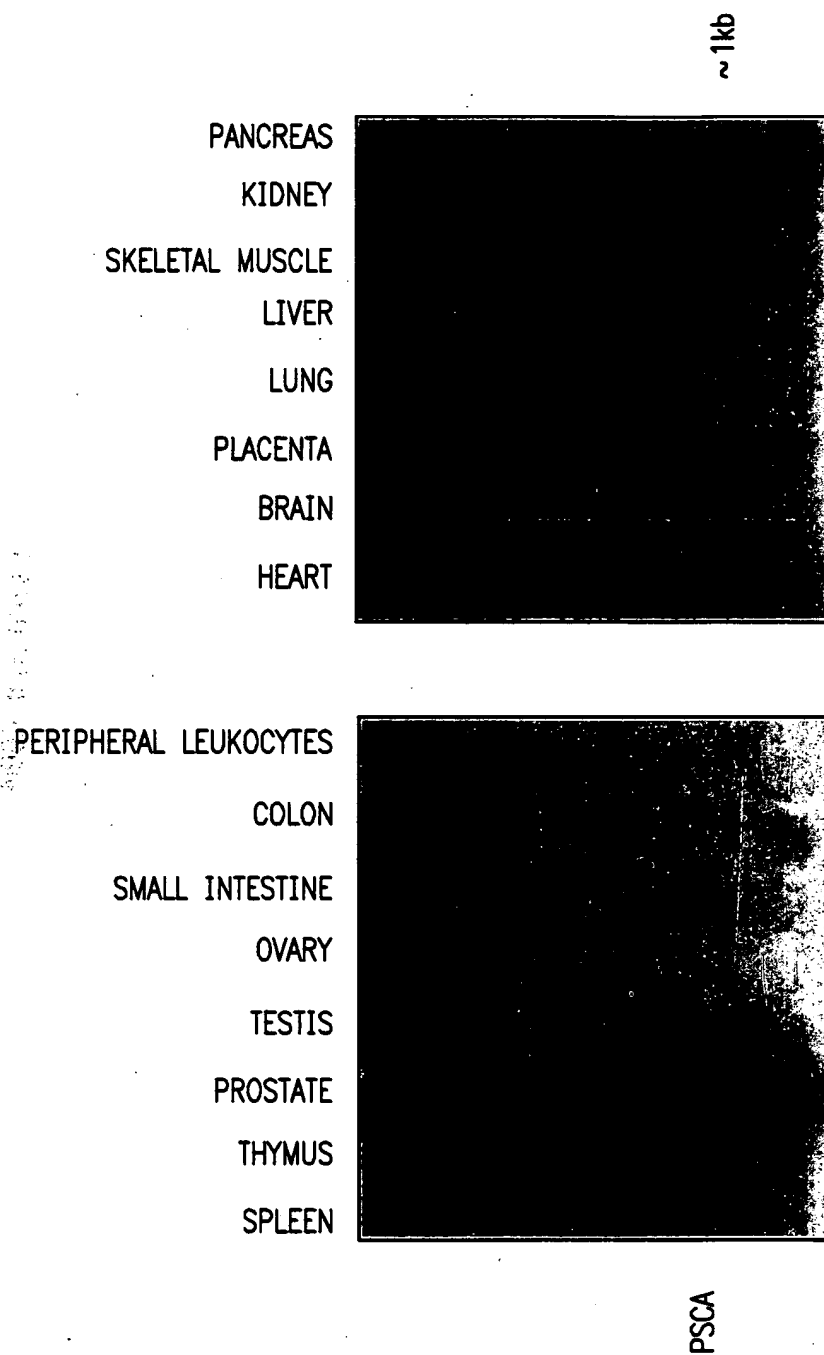


FIG. 9B

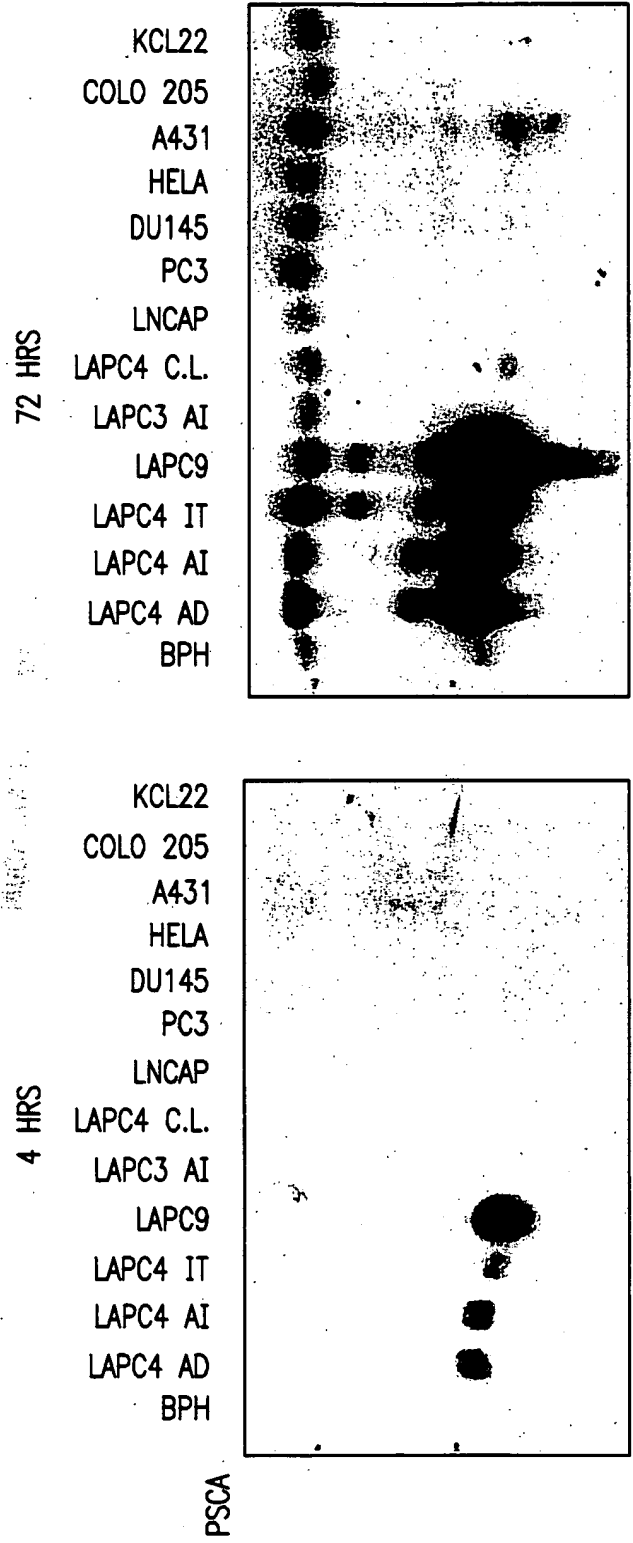
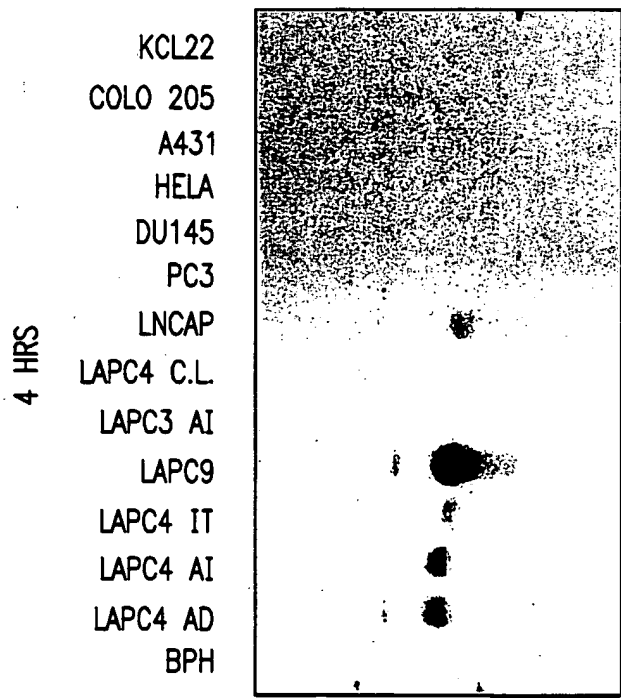
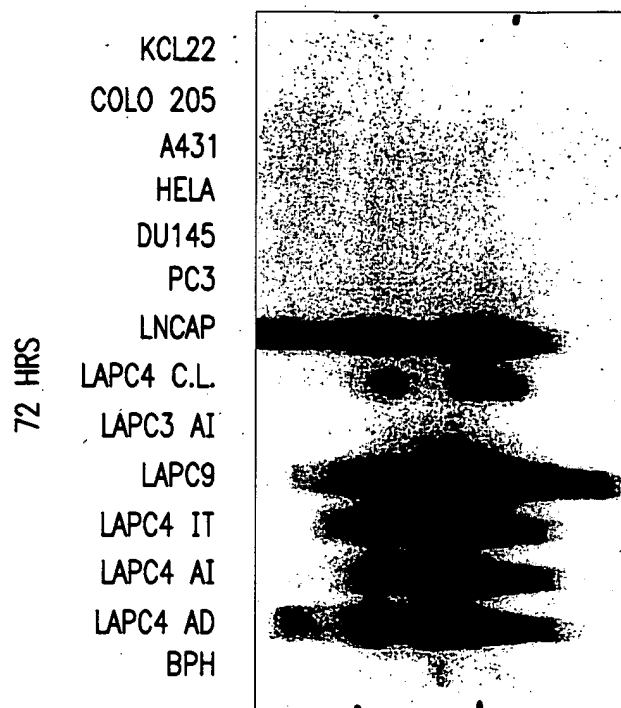
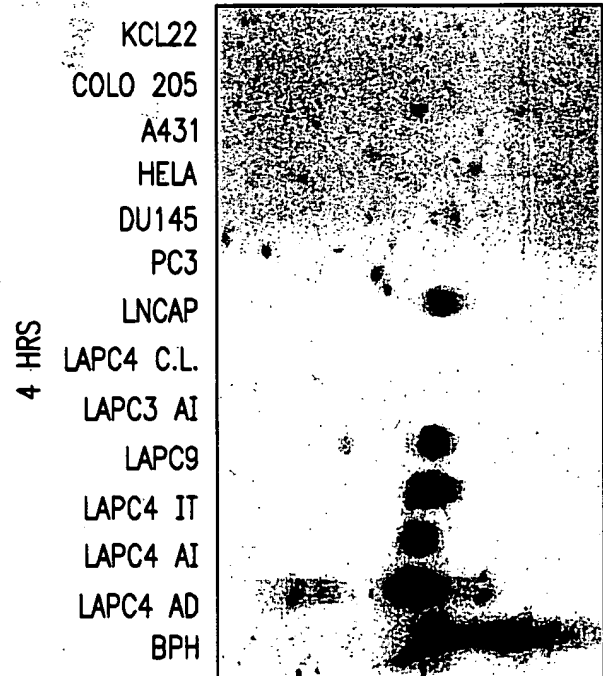
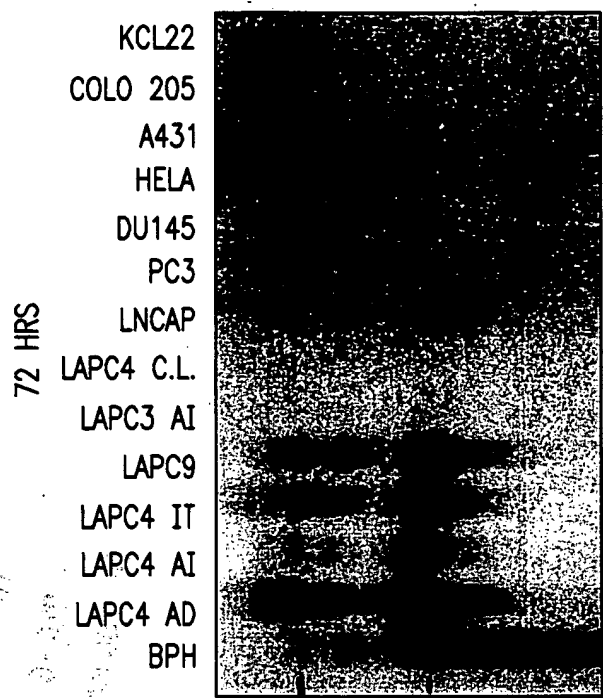


FIG. 10-1

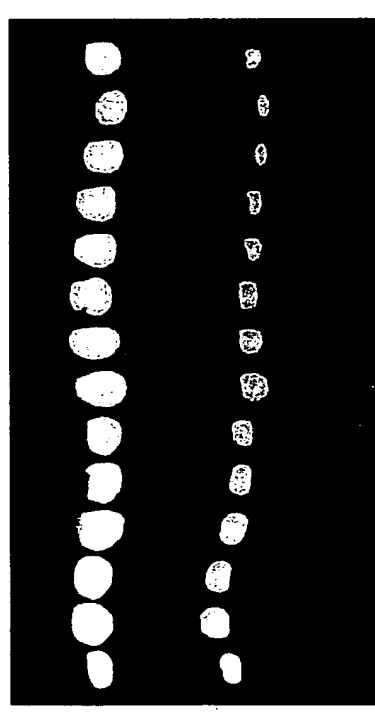


PSM

FIG. 10-2



PSA



ETBR

FIG. 10-3

FIG. 11A

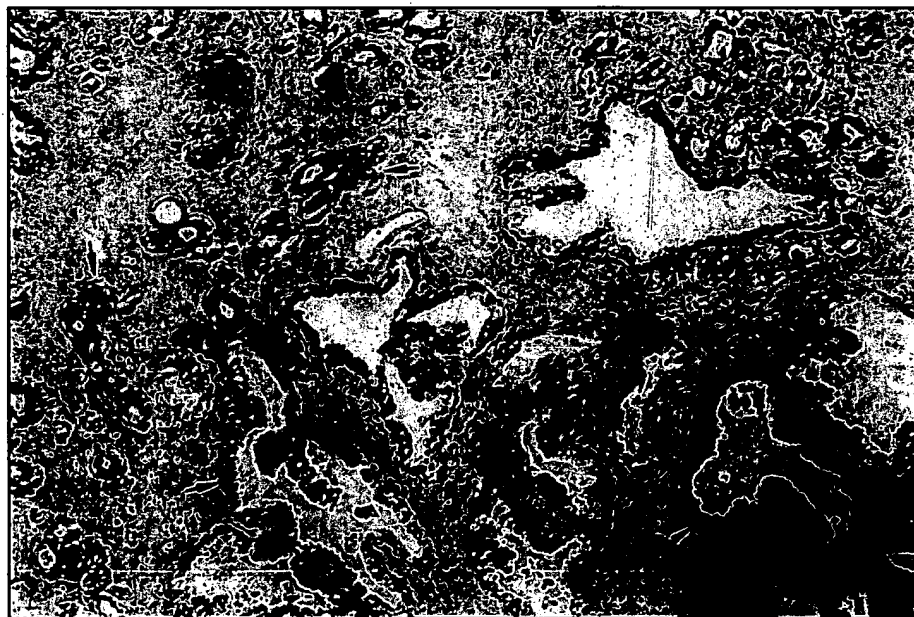


FIG. 11B

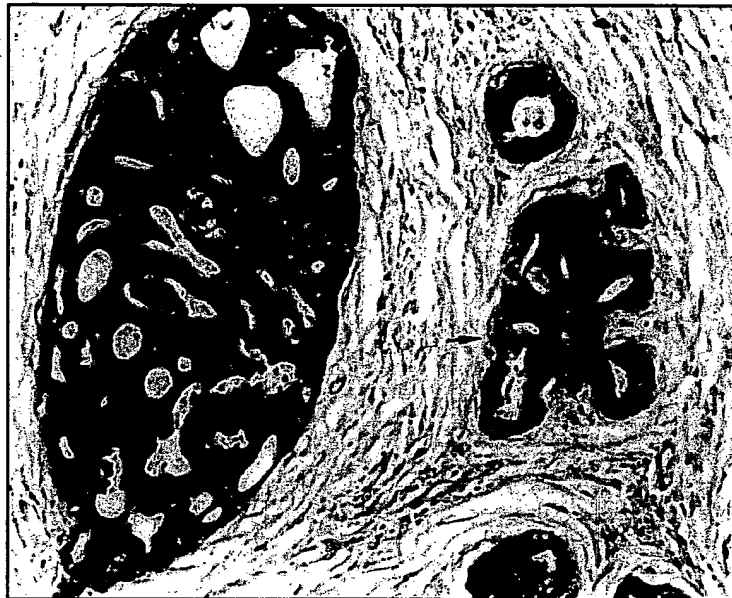
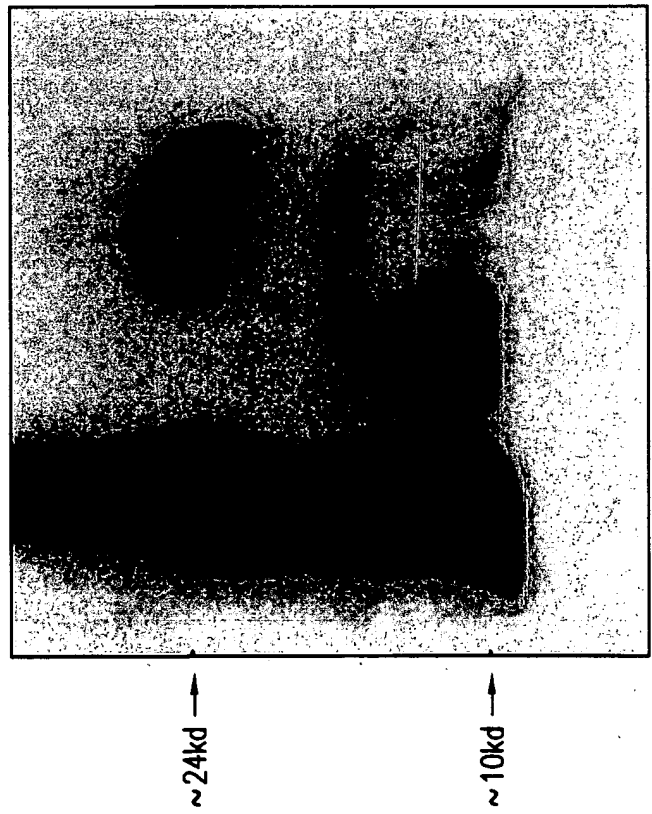


FIG. 11C

FIG. 12A

O GLYCOSIDASE
N GLYCOSIDASE F
CONTROL



SECRETED
CELL ASSOCIATED

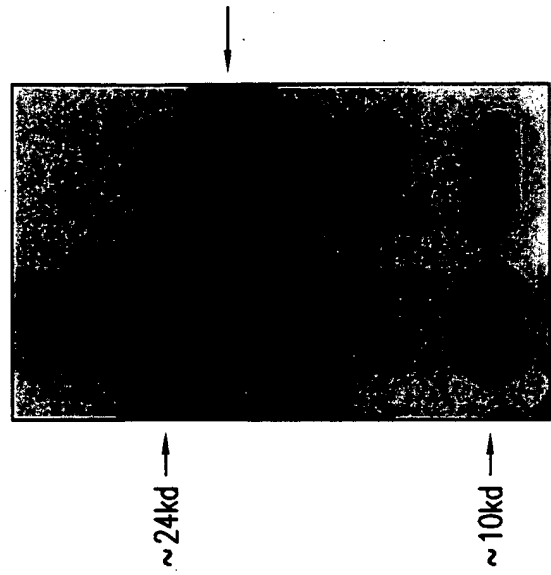
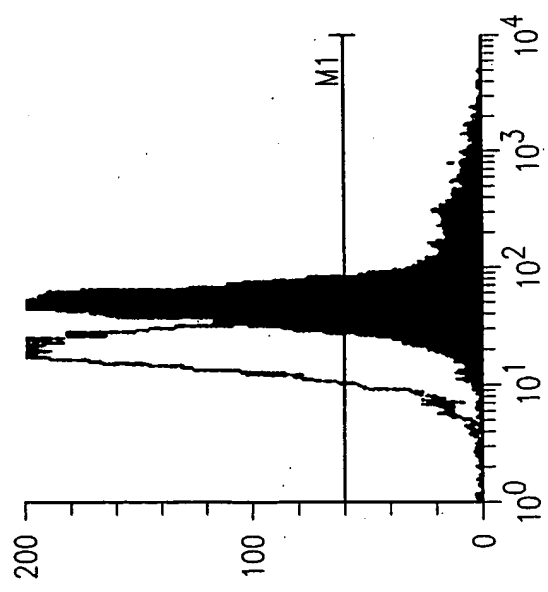


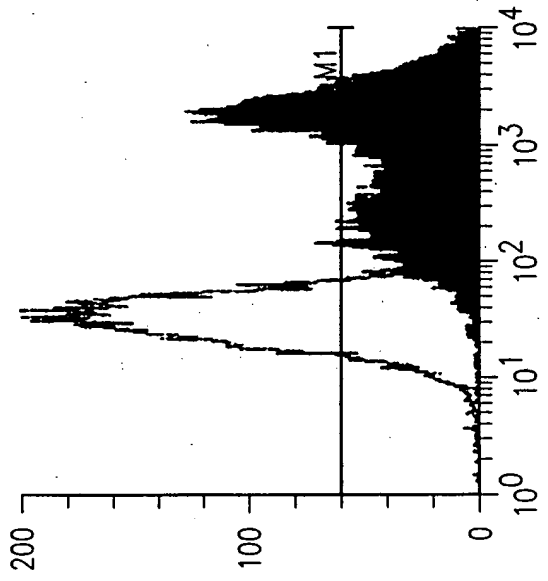
FIG. 12B

293T971003008\FL2-H\FL2-Height



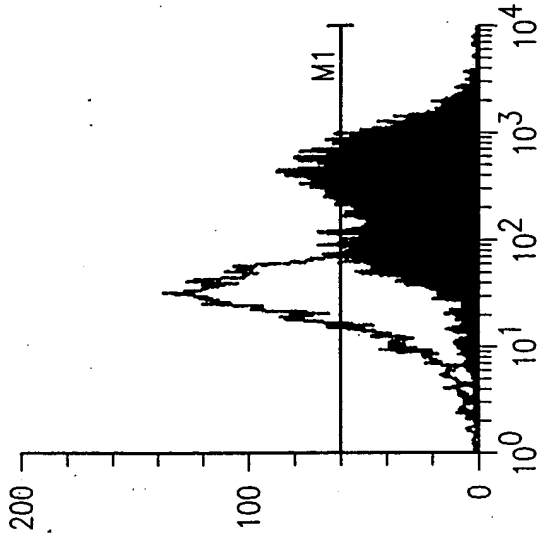
293T CONTROL

293T971003010\FL2-H\FL2-Height



293T + PSCA

293T971003012\FL2-H\FL2-Height



LAPC-4

FIG. 12C

FIG. 13



FIG. 14A

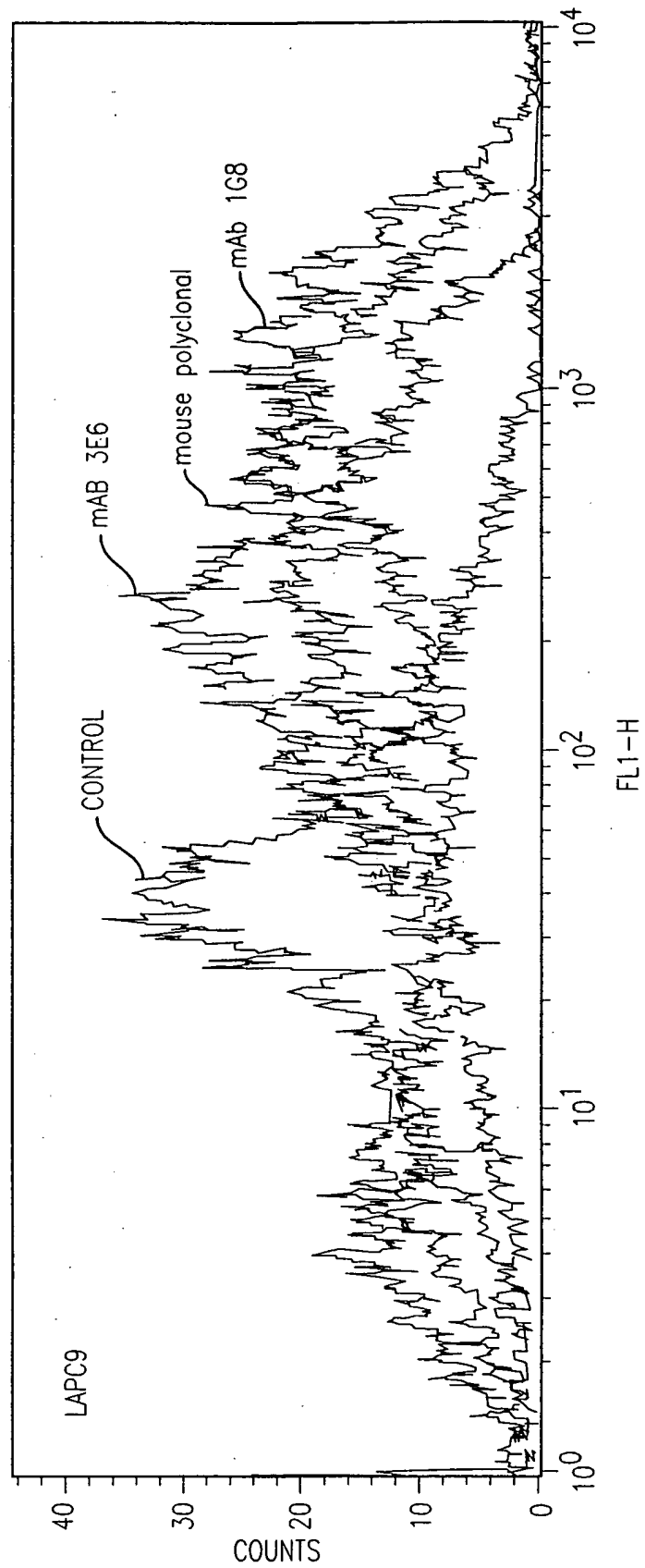


FIG. 14B

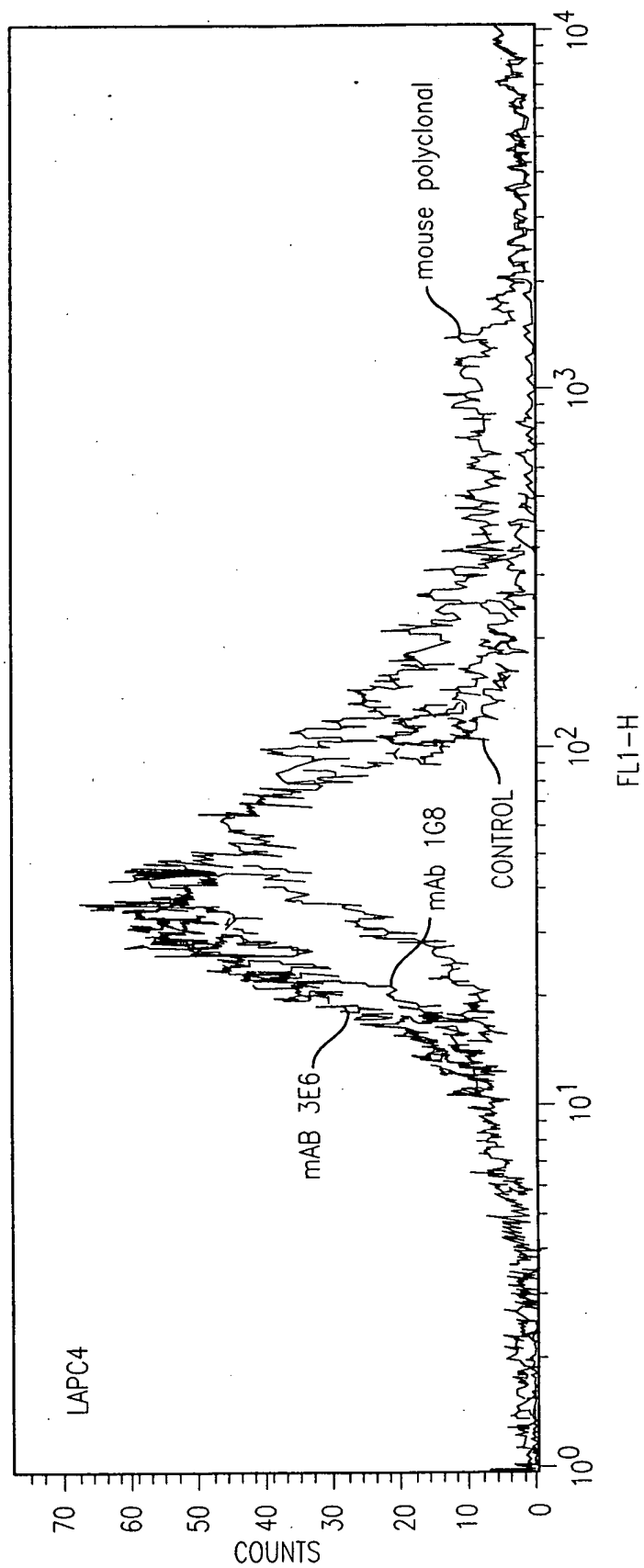


FIG. 14C

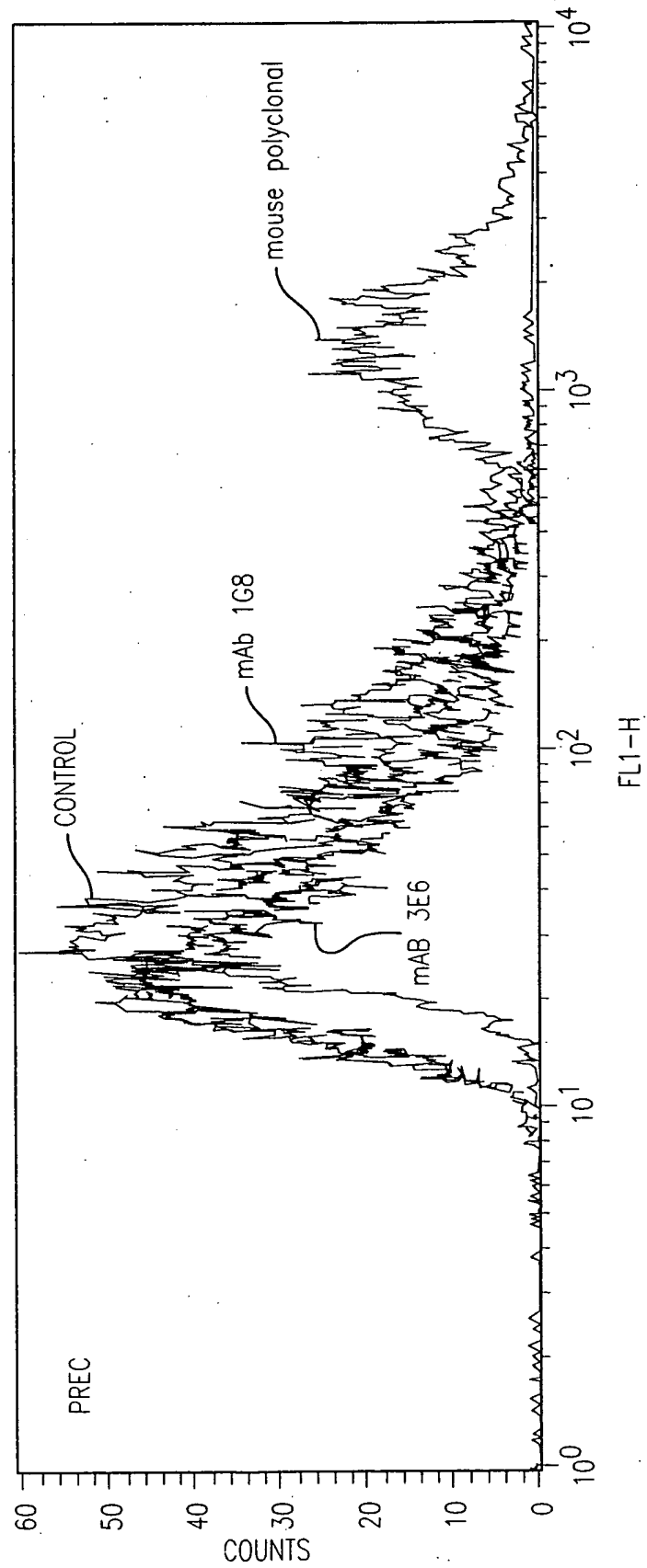


FIG. 15

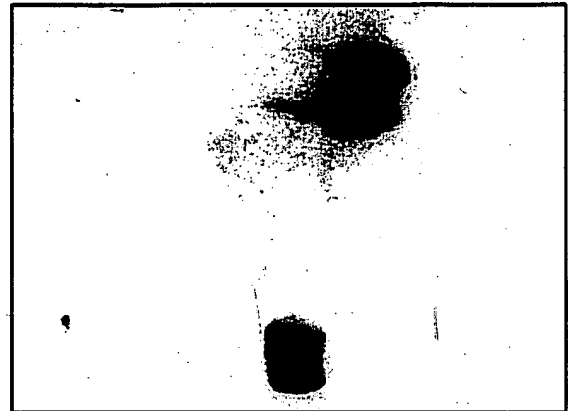
3E6

GST-C-TERMINAL

GST-MIDDLE

GST-N-TERMINAL

GST-PSCA



1C8

GST-C-TERMINAL

GST-MIDDLE

GST-N-TERMINAL

GST-PSCA

